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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Office of Human Development Services
Administration for Children, Youth and Families
Head Start Bureau

Executive Summary

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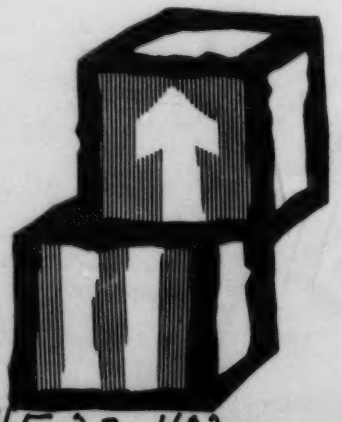
Head Start Synthesis Project



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Prepared for the Head Start Bureau
Administration for Children, Youth and Families
Office of Human Development Services
U.S. Department of Health and Human Services

EXECUTIVE SUMMARY

THE IMPACT OF HEAD START ON CHILDREN, FAMILIES AND COMMUNITIES

Final Report of the Head Start Evaluation, Synthesis and Utilization Project

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FOREWORD

The Head Start program is entering its twentieth year of existence. During that time, great strides have been made to shape it into a dynamic and comprehensive program. Children who have been touched by Head Start are stronger physically and mentally and much better prepared to cope with their environment. Parents feel better about themselves, and many have raised their personal aspirations and the aspirations of their children as a direct result of participation in the program. Communities also have been affected significantly by the presence of Head Start in terms of improved educational, health and social services.

These are some of the many findings that appear in the final report of the Head Start Evaluation, Synthesis and Utilization Project. This report represents one of the most definitive and comprehensive statements of Head Start impact ever published. It certainly will be a valuable resource for policy analysts and program managers, as well as for the general early childhood development and research communities.

In spite of the many successes of Head Start reflected in this report, the report also provides us with insights into areas where further improvements can be made. These must be pursued during the next several years if children and parents are to realize maximum benefits from the program. Some of these improvements include more effective planning of educational activities in the classroom to assure that each child is provided with individual experiences appropriate to her or his developmental level; a closer partnership between parents and teachers in the development of their children; more emphasis on school readiness skills; and closer linkages between Head Start and the elementary school system to assure long-term continuation of the growth that children demonstrate while in Head Start.

While many findings presented in this report provide clear signals about which program components contribute materially to improving child and family developmental outcomes, some are not so clear. We, therefore, will continue to support more focused research to help unravel some of the ambiguities surrounding the issue of what works best for whom. We encourage programs to pursue this search for excellence.

Clennie Murphy, Jr.
Acting Associate Commissioner
Head Start Bureau

June, 1985

EXECUTIVE SUMMARY

THE IMPACT OF HEAD START ON CHILDREN, FAMILIES AND COMMUNITIES

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OVERVIEW

The Head Start Evaluation, Synthesis and Utilization Project involved the collection of over 1,600 documents related to Head Start and the analysis and synthesis of 210 reports of research on the effects of local Head Start programs. This project is distinguished from other reviews of the Head Start evaluation literature in two ways. First, it includes *all* Head Start research, both published and unpublished, rather than focusing on a subset of studies related to a specific topic. Second, when possible it uses the statistical technique known as "meta-analysis" to produce numerical estimates of Head Start's effects.

The final report[1] for this project presents findings on the impact of Head Start on:

- children's cognitive development
- children's socioemotional development
- children's health
- families of Head Start enrollees
- communities where Head Start programs operate

It concludes that **children enrolled in Head Start enjoy significant immediate gains in cognitive test scores, socioemotional test scores and health status. In the long run, cognitive and socioemotional test scores of former Head Start students do not remain superior to those of disadvantaged children who did not attend Head Start. However, a small subset of studies find that former Head Starters are more likely to be promoted to the next grade and are less likely to be assigned to special education classes. Head Start also has aided families by providing health, social and educational services and by linking families with services available in the community. Finally, educational, economic, health care, social service and other institutions have been influenced by Head Start staff and parents to provide benefits to both Head Start and non-Head Start families in their respective communities.**

The next sections of this Executive Summary describe the background and methodology for this project, including the meta-analysis technique. Following that is a presentation of the major research questions addressed by this synthesis and the answers supported by the body of Head Start research. The final section is a discussion of the program and policy implications of project findings.

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[1] ***The Impact of Head Start on Children, Families and Communities.*** Washington, D.C.: CSR, Incorporated, 1985.

BACKGROUND

The launching of Head Start in 1965 was a precedent-breaking experiment designed to provide child development services to low-income families. Initially a six-week summer program, Head Start soon was expanded to a full-year term and has served over eight and a half million children since its creation.[2]

The overall goal of the Head Start program, as stated in the Head Start Program Performance Standards,[3] is "to bring about a greater degree of social competence in children of low income families. By social competence is meant the child's everyday effectiveness in dealing with both present environment and later responsibilities in school and life" (p. 1). In support of this goal, the Performance Standards identify six objectives:

1. Improvement of the child's health and physical abilities and the family's attitude toward future health care and physical abilities.
2. Encouragement of self-confidence, spontaneity, curiosity, and self-discipline.
3. Enhancement of the child's mental processes and skills with particular attention to conceptual and communication skills.
4. Establishment of patterns and expectations of success for the child.
5. Increase in the ability of the child and the family to relate to each other and to others.
6. Enhancement of the sense of dignity and self-worth within the child and her or his family (pp. 1-2).

Hundreds of studies conducted under both private and public auspices have focused on the success of Head Start in meeting these objectives. The studies vary widely in subject, design, topics addressed, and findings. Samples range from a handful of children or families to several thousand. Those studied have varied in family size and structure, income, ethnic background, level of parental education and employment status. Some studies measured changes in subjects from before to just after their Head Start experience, while others compared Head Start children and families to those with no Head Start experience. Research has tended to concentrate on changes in children's cognitive performance, with far fewer studies examining Head Start's effects on socio-emotional or physical development. A limited number of studies have followed Head Start and non-Head Start samples for several years to determine the stability of program effects over time. Findings of Head Start studies vary widely, with some showing a significant impact of Head Start and others indicating no impact or even a negative impact.

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[2]Project Head Start Statistical Fact Sheet, Washington, D.C.: ACYF, DHHS, 1983.

[3]Head Start Program Performance Standards, Washington, D.C.: ACYF, DHHS, 1975.

In 1981, the Administration for Children, Youth and Families (ACYF) selected CSR, Incorporated, to undertake a multi-year effort to synthesize the large body of Head Start evaluation literature and make these findings more accessible to national, regional and local Head Start decision makers. ACYF intended that the findings be used to help direct the course of policy and program initiatives and to identify areas of need for additional and more focused research. The Head Start Evaluation, Synthesis and Utilization Project addresses the impact of Head Start on children's cognitive development, socioemotional development and health as well as its impact on participant families and local communities. The following section describes the methodology used in this project.

METHODOLOGY

COLLECTION OF DOCUMENTS

The synthesis began with an extensive search for all Head Start-related studies, whether published or unpublished, that had been conducted since the program's inception. On-line searches of computerized bibliographies, written requests to over 1800 Head Start grantees, and contacts with government personnel and private researchers in the Head Start field supplemented materials held by ACYF. Eventually more than 1600 documents were assembled, abstracted, and indexed by topic area.[4] Of these, 210 report the results of research on Head Start, while the remainder include policy documents, descriptive reports, theoretical papers, and analyses of early childhood education programs other than Head Start.

The 210 documents that report findings of Head Start research comprised the data base for the synthesis. The findings address Head Start's impact in five general areas: cognitive development, socioemotional development, child health, families, and communities. Multiple reports of findings from the same study were treated together so that each study is counted only once in any analysis. Traditional narrative review methods were used to synthesize 134 of the studies.

For the remaining 76 studies, enough information was reported to enable application of the quantitative technique known as meta-analysis. Among these studies, 72 investigated gains in cognitive ability, 17 tested for socioemotional gains, and 5 measured family impacts. Cognitive measures used in these studies included tests of intelligence, school readiness, and achievement.[5] A few studies also examined retention in grade and placement in special education classes. Socioemotional measures used relate to three general attributes: self-esteem, social behavior, and achievement motivation.[6] The five studies of family impact that could be included in a meta-analysis examined the relationship between parent involvement in Head Start and child cognitive performance.

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[4] An annotated bibliography of all collected documents is contained in ***An Annotated Bibliography of the Head Start Research Since 1965,*** prepared by CSR, Incorporated (June, 1985) for publication by the U.S. Department of Health and Human Services. An earlier version by CSR, Incorporated appears in ***A Review of Head Start Research Since 1970 and an Annotated Bibliography of the Head Start Research Since 1965,*** DHHS Publication Number (OHDS) 83-31185, U.S. Government Printing Office Document Number 1983 0-419-410.

[5] Intelligence tests provide a global measure of an individual's general intellectual level and scholastic aptitude. They include examination of such aptitudes as verbal comprehension, numerical reasoning, numerical computation, spatial visualization and associative memory. Readiness for school refers to the set of skills such as motor control, language development, and number and letter recognition that contribute to successful transition to school. Achievement refers to the mastery of subject matter.

[6] Self-esteem is a personal judgment of one's own worthiness. Social behavior refers to the child's interaction with other children and adults. As a child matures, interaction with adults gives way to more interaction with other children as solitary play moves to parallel play and then cooperative play. Achievement motivation is the child's desire to complete tasks, master problems, and increase her or his skills and abilities.

META-ANALYSIS

Meta-analysis is a recently developed statistical technique for aggregating the findings of different studies on the same topic. Single-study analyses use data from individual subjects to derive summary statistics (such as averages and standard deviations) that describe the subjects of that study as a group. Meta-analysis uses the summary statistics from a number of studies to describe the findings of those studies as a group.

To enable comparisons among studies, findings of each study in a meta-analysis are converted into "effect sizes"—statistics that compare the performances of two groups. In "treatment/control" studies of Head Start impact, the comparison is between a group of children with Head Start experience (the "treatment" group) and a group with no Head Start involvement (the "comparison" or "control" group). In "pre/post" studies of Head Start, an effect size compares the performances of the same group of children before ("pre-test") and after ("post-test") their Head Start involvement.

When effect sizes were calculated from scores obtained before and after children attended Head Start, test norms were used in the calculations to control for the maturation that occurs naturally in children of that age. While this is the best available way to identify what amount of gain found by pre/post studies can be judged as due to Head Start rather than to normal growth, it is an imprecise adjustment. More confidence generally can be placed in the findings of treatment/control studies, which use comparison groups specifically to control for the effects of maturation and other non-Head Start influences.

In the Head Start synthesis, a positive effect size means that the average score of the Head Start group was larger than that of the non-Head Start group. A negative effect size indicates that the control group out-scored the Head Start group. Educators and researchers in early childhood education commonly consider an effect size in the range of 0.25 or greater (either positive or negative) to be educationally meaningful. Differences of this size accompany noticeable improvements in classroom performance.[7]

Once effect sizes are calculated for each study in a meta-analysis, they can be grouped and analyzed in various ways. For the Head Start synthesis, effect sizes measuring the same type of impact (e.g., effect sizes measuring Head Start impact on achievement test scores) were grouped together and then averaged to determine the average impact of Head Start on that aspect of development. For example, all effect sizes for studies that examined achievement test seores were averaged and all effect sizes for all cognitive measures were averaged. (In cases where multiple tests were given to the same group of children, the effect sizes were weighted so that no one group of children affected averages disproportionately.) Average effect sizes were analyzed further to measure the influence of factors such as class size or average child age at enrollment. More detailed information about the many groupings, analyses and weighting used in the Head Start sythesis is provided in the final report.

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[7] Cohen, Jacob. ***Statistical Power Analysis for the Behavioral Sciences*** (2nd ed.). New York: Academic Press, 1977.

RESULTS

In this section the findings of the Head Start Evaluation, Synthesis and Utilization Project are presented in a question-and-answer format. Questions are grouped according to the five impact areas addressed by the project: cognitive development, socioemotional development, child health, families, and communities. Answers to some of the questions are labeled "unclear" or "mixed." This occurs when there is insufficient information to draw firm conclusions or when studies yielded conflicting findings. Conflicting findings are particularly common when results from treatment/control design studies are compared to results from pre/post design studies.

IMPACT OF HEAD START ON CHILDREN'S COGNITIVE DEVELOPMENT

Seventy-two studies provided data for meta-analyses of research into Head Start's effects on cognitive development. Results of these analyses are presented below. Conclusions about the program's immediate and long-range impact on intelligence, school readiness and achievement test scores are presented first. Following that section are findings on the ways that various program characteristics and child and family attributes affect Head Start's impact on an overall measure of cognitive development that combines all three types of these cognitive tests. Depending on the availability of an adequate number of studies, some of these findings address both immediate and long-range effects while others pertain to immediate effects only.

Overall Impact

- DOES HEAD START HAVE IMMEDIATE POSITIVE EFFECTS ON CHILDREN'S COGNITIVE ABILITY?

  YES — Studies are virtually unanimous in this conclusion. Regardless of study design or the particular cognitive measure used, children show significant immediate gains as a result of Head Start participation (see Figure 1).

- DO THE COGNITIVE TEST SCORE GAINS ACHIEVED DURING HEAD START PERSIST OVER THE LONG TERM?

  GENERALLY NO — One year after Head Start, the differences between Head Start and non-Head Start children on achievement and school readiness tests continue to be in the educationally meaningful range, but the two groups score at about the same level on intelligence tests. By the end of the second year there are no educationally meaningful differences on any of the measures (see Figure 2).

Figure 1

Immediate Effects of Head Start on Cognitive Development, By Study Design and Type of Cognitive Test

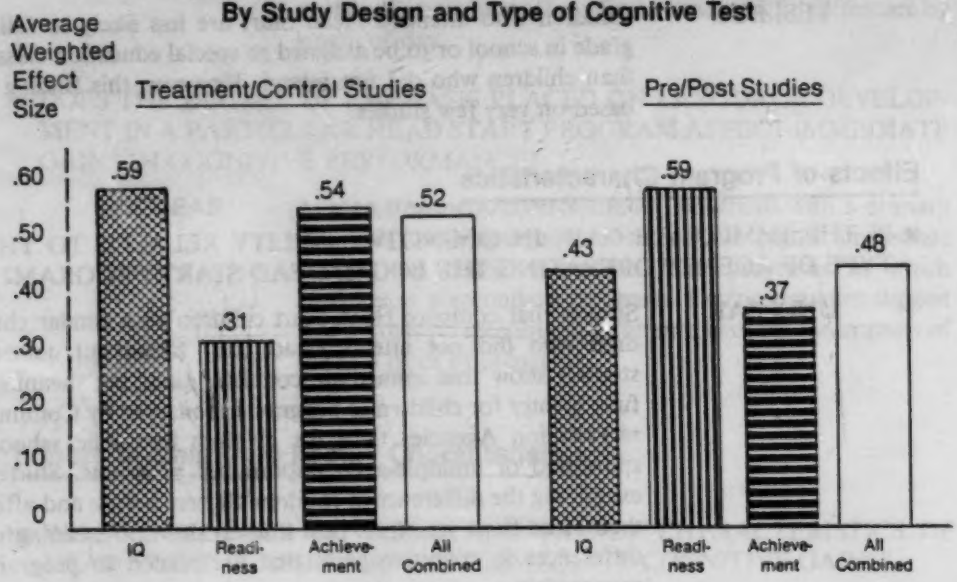
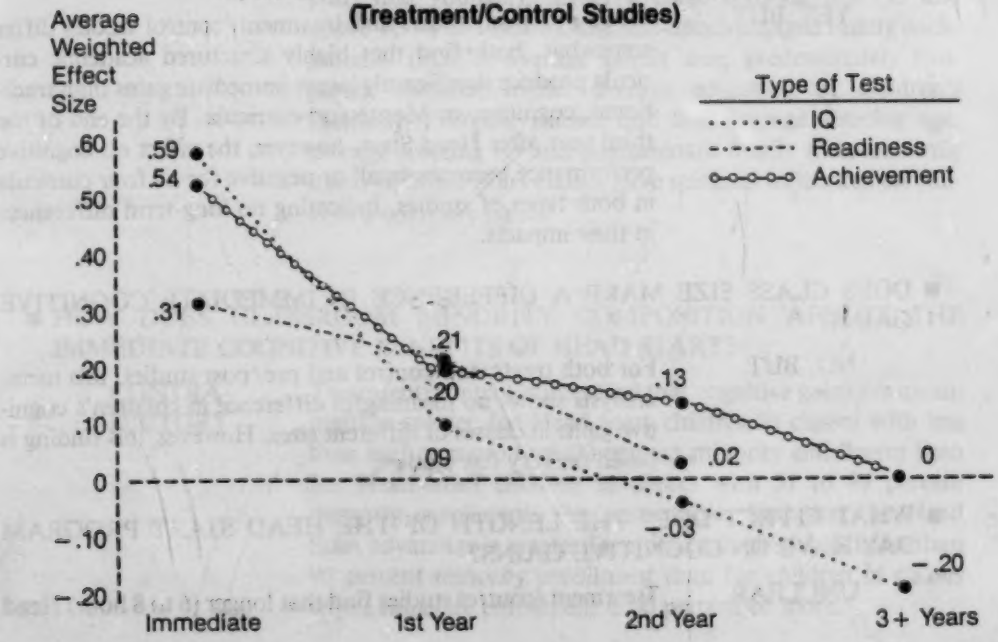


Figure 2

Immediate Effects and Long-Term Effects of Head Start on IQ, School Readiness and Achievement Measures (Treatment/Control Studies)



■ DOES HEAD START AFFECT THE LONG-TERM SCHOOL SUCCESS OF ITS FORMER ENROLLEES?

YES, BUT — Children who attended Head Start are less likely to fail a grade in school or to be assigned to special education classes than children who did not attend. However, this finding is based on very few studies.

Effects of Program Characteristics

■ IS THE IMMEDIATE GAIN IN COGNITIVE ABILITY RELATED TO THE TYPE OF AGENCY OPERATING THE LOCAL HEAD START PROGRAM?

UNCLEAR — Studies that compare Head Start children with similar children who did not attend Head Start (treatment/control studies) show that immediate cognitive gains are meaningfully greater for children in programs sponsored by Community Action Agencies than for children in public school-sponsored or multiple-agency-sponsored programs. Studies examining the difference in children's scores before and after their Head Start year (pre/post studies) show no meaningful differences in cognitive gains that are related to program sponsorship.

■ DO DIFFERENT CLASSROOM CURRICULA PRODUCE DIFFERENT RESULTS?

YES, BUT — While pre/post studies and treatment/control studies differ somewhat, both find that highly structured academic curricula produce significantly larger immediate gains than traditional, cognitive, or Montessori curricula. By the end of the third year after Head Start, however, the effect on cognitive performance becomes small or negative for all four curricula in both types of studies, indicating no long-term differences in their impacts.

■ DOES CLASS SIZE MAKE A DIFFERENCE IN IMMEDIATE COGNITIVE GAINS?

NO, BUT — For both treatment/control and pre/post studies, this meta-analysis shows no meaningful difference in children's cognitive gains in classes of different sizes. However, this finding is based on very few studies.

■ WHAT EFFECT DOES THE LENGTH OF THE HEAD START PROGRAM DAY HAVE ON COGNITIVE GAINS?

UNCLEAR — Treatment/control studies find that longer (6 to 8 hour) Head

Start days are related to markedly higher immediate cognitive effects than are shorter (2.5 to 5 hour) sessions. Pre/post studies of immediate effects find no meaningful difference by length of day.

- DOES THE DEGREE OF EMPHASIS PLACED ON LANGUAGE DEVELOPMENT IN A PARTICULAR HEAD START PROGRAM AFFECT IMMEDIATE GAINS IN COGNITIVE PERFORMANCE?

UNCLEAR — Among treatment/control studies, programs with a primary emphasis on language interaction have higher immediate impacts on cognitive abilities than programs in which language is a secondary emphasis. Pre/post studies suggest that there is no meaningful difference between the impacts of the two types of programs.

Effects of Child and Family Characteristics

- WHAT INFLUENCE DO CHILD AND FAMILY CHARACTERISTICS OF HEAD START CLASSES HAVE ON IMMEDIATE COGNITIVE GAINS?

UNCLEAR — Treatment/control studies suggest that greater immediate gains are achieved by children in Head Start classes with higher average entering ages (4.1 years and above vs. 4.0 years and younger), higher average entering IQs (93 and above vs. 92 and below), and less-disadvantaged family backgrounds (smaller average family size, predominately two-parent families, higher average education of children's mothers). Pre/post studies find that average entering age, average entering IQ and predominant family socioeconomic status of Head Start classes have minimal influences on children's cognitive gains.

- HOW DOES CLASSROOM MINORITY COMPOSITION AFFECT THE IMMEDIATE COGNITIVE BENEFITS OF HEAD START?

CONTRADICTORY — Treatment/control studies find that cognitive gains are meaningfully greater for Head Start children in classes with less than half or more than 90 percent minority enrollment than for Head Start children in classes with 51 to 89 percent minority enrollment. Pre/post studies find that the Head Start advantage is greater for children in classes with less than 90 percent minority enrollment than for children in classes where minority enrollment is 90 percent or more.

■ DO ANY OF THE CHILD AND FAMILY CHARACTERISTICS OF HEAD START CLASSES INFLUENCE THE PERSISTENCE OF COGNITIVE PERFORMANCE PAST THE HEAD START YEAR?

NO — For the most part, regardless of the average entering age, average entering IQ, minority composition or family socioeconomic status of their Head Start class, former Head Start children perform on a par with or less well than their non-Head Start peers at one, two and three years after Head Start. The few exceptions are unrelated to each other and suggest no clear trends.

IMPACT OF HEAD START ON CHILDREN'S SOCIOEMOTIONAL DEVELOPMENT

Meta-analyses of results from 17 studies provided information about Head Start's immediate and long-range effects on self-esteem, achievement motivation and social behavior. They also provided information on the impact of two program characteristics and several child and family attributes on gains in achievement motivation. Treatment/control and pre/post studies of socioemotional impacts were analyzed together because there were too few pre/post studies to permit separate analyses and combining the two types of studies did not appreciably affect the results. The studies did not examine the effects of other program variables, or the effects of child and family attributes on self-esteem and social behavior, in numbers sufficient to allow meta-analyses of these relationships.

Overall Impact

■ DOES HEAD START HAVE IMMEDIATE POSITIVE EFFECTS ON CHILDREN'S SELF-ESTEEM, ACHIEVEMENT MOTIVATION AND SOCIAL BEHAVIOR?

YES — At the end of the Head Start year, program participants score higher in all three areas than comparison groups of non-Head Start children. The greatest difference is in social behavior, the least difference is in self-esteem (see Figure 3).

■ DO THE SOCIOEMOTIONAL GAINS FOUND IMMEDIATELY AFTER HEAD START PERSIST IN LATER YEARS?

MIXED — On social behavior, former Head Start enrollees continue to score higher than non-Head Start children two years after Head Start, then drop to the level of comparison children by the end of the third year. On achievement motivation and self-esteem, Head Start children drop below non-Head Starters a year after Head Start, then score about the same as comparison children for the next two years (see Figure 4).

Figure 3

Immediate Effects of Head Start on Self-Esteem, Achievement Motivation and Social Behavior (Treatment/Control and Pre/Post Studies Combined)

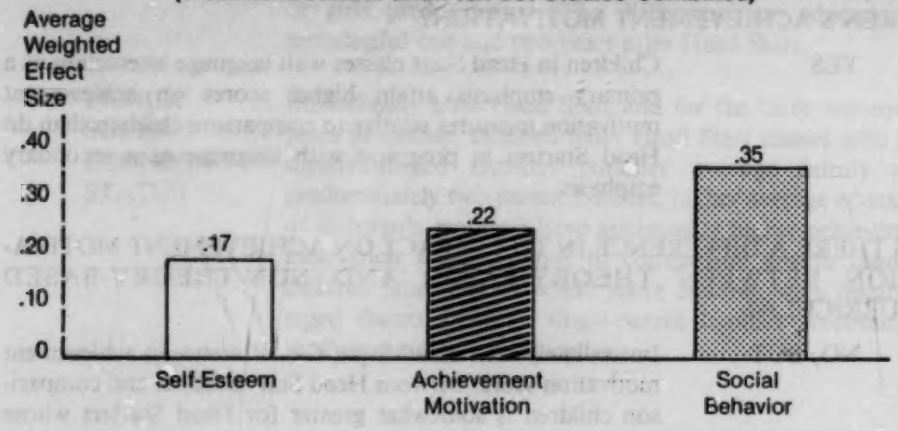
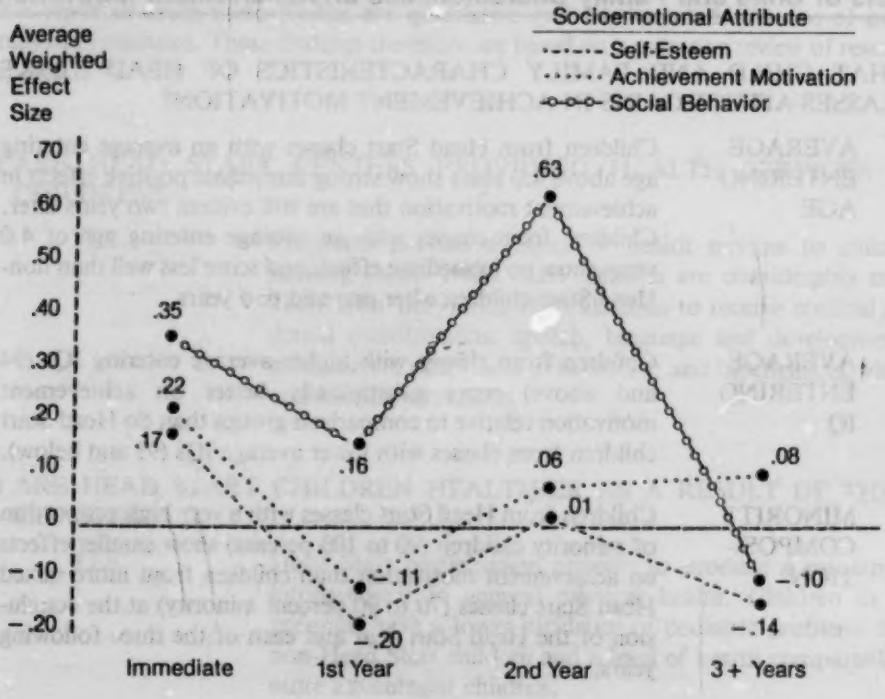


Figure 4

Immediate Effects and Long-Term Effects of Head Start on Self-Esteem, Achievement Motivation and Social Behavior (Treatment/Control and Pre/Post Studies Combined)



Effects of Program Characteristics on Achievement Motivation

- DOES AN EMPHASIS ON LANGUAGE DEVELOPMENT IN A HEAD START PROGRAM AFFECT THE EXTENT OF HEAD START'S IMPACT ON CHILDREN'S ACHIEVEMENT MOTIVATION?

YES	Children in Head Start classes with language interaction as a primary emphasis attain higher scores on achievement motivation measures relative to comparison children than do Head Starters in programs with language as a secondary emphasis.

- IS THERE A DIFFERENCE IN THE IMPACT ON ACHIEVEMENT MOTIVATION BETWEEN THEORY-BASED AND NON-THEORY-BASED CURRICULA?

NO, BUT	Immediately after Head Start, the difference in achievement motivation scores between Head Start children and comparison children is somewhat greater for Head Starters whose programs employed theory-based curricula than for Head Starters from non-theory-based curricula. This is particularly true for curricula based on Piagetian theory.

Effects of Child and Family Characteristics on Achievement Motivation

- WHAT CHILD AND FAMILY CHARACTERISTICS OF HEAD START CLASSES AFFECT GAINS IN ACHIEVEMENT MOTIVATION?

AVERAGE ENTERING AGE	Children from Head Start classes with an average entering age above 4.0 years show strong immediate positive effects in achievement motivation that are still evident two years later. Children from classes with an average entering age of 4.0 years show no immediate effects and score less well than non-Head Start children after one and two years.
AVERAGE ENTERING IQ	Children from classes with higher average entering IQs (94 and above) score substantially better on achievement motivation relative to comparison groups than do Head Start children from classes with lower average IQs (93 and below).
MINORITY COMPOSITION	Children from Head Start classes with a very high proportion of minority children (90 to 100 percent) show smaller effects on achievement motivation than children from more mixed Head Start classes (70 to 90 percent minority) at the conclusion of the Head Start year and each of the three following years.

GENDER MIX	Children whose Head Start classes had a balanced gender mix (45 to 57 percent girls) show higher achievement motivation score gains than children from classrooms where either boys or girls predominated. The differences are educationally meaningful one and two years after Head Start.
FAMILY SOCIO-ECONOMIC STATUS	Immediately after Head Start and for the three subsequent years of testing, children from Head Start classes with less-disadvantaged families (smaller average family size, predominately two-parent families, higher average education of children's mothers) have appreciably higher achievement motivation scores relative to comparison groups than do children from classes where more children were disadvantaged (larger families, single-parent families predominate, mothers average less education).

IMPACT OF HEAD START ON CHILDREN'S HEALTH

Many children enrolling in Head Start have health problems. Conclusions about the program's impact on child health status are derived from 34 studies. Most of the data reported from these studies are qualitative and thus preclude the use of meta-analysis procedures. These findings therefore are based on a narrative review of research reports.

- **ARE HEAD START CENTERS PROVIDING HEALTH SERVICES TO CHILDREN?**

YES	Programs provide a range of health services to children needing them. Head Start children are considerably more likely than non-Head Start children to receive medical and dental examinations; speech, language and developmental assessments; nutritional evaluations; and biochemical, vision and hearing screenings.

- **ARE HEAD START CHILDREN HEALTHIER AS A RESULT OF THESE SERVICES?**

YES	Head Start participation appears to produce a meaningful improvement in general physical health. Children in the program have a lower incidence of pediatric problems than non-Head Start children and a level of health comparable to more advantaged children.

■ **IS THE MOTOR DEVELOPMENT OF HEAD START CHILDREN IMPROVED?**

YES — Head Start has a meaningful impact on children's motor coordination and development. The largest gains have been observed among children with physical handicaps and those suffering from developmental delays.

■ **ARE HEAD START CHILDREN PROVIDED A HEALTHIER DIET?**

YES, BUT — Head Start meals and snacks provide up to 50 percent of the nutrients recommended for children of this age. Children who attend a Head Start center tend to have higher protein, calorie and essential nutrient intake than children who do not attend. They also tend to be healthier according to biochemical indices. However, the research is mixed on whether the home diets of Head Start children are better than those of non-Head Start children. Some studies report no differences.

■ **DO HEAD START CHILDREN BENEFIT FROM DENTAL SERVICES?**

YES — Head Start children are in great need of dental care when they enter the program, with many never having been to a dentist. Two studies indicate that Head Start children receive better dental care, have fewer cavities and practice better dental hygiene than non-Head Start children.

■ **IS HEAD START MEETING ITS MANDATE TO SERVE HANDICAPPED CHILDREN?**

YES, BUT — Individual programs generally meet or exceed the requirement that at least 10 percent of enrollees be professionally diagnosed as handicapped, but most of these children exhibit mild impairments such as speech and developmental disabilities. Only a small percentage of handicapped Head Start children are severely disabled. Many programs lack specially trained teachers and individualized educational plans for handicapped children.

■ **DO HANDICAPPED CHILDREN BENEFIT FROM HEAD START PARTICIPATION?**

PROBABLY — Research on this topic is minimal, but Head Start has been shown to have positive impacts on developmental, speech/language, and vision disorders. Further, developmental and behavioral gains are greater for Head Start than non-Head Start handicapped children, and mentally retarded children in

Head Start show significantly more motor ability than similar children not in Head Start.

■ WHAT IS HEAD START'S IMPACT ON CHILDREN'S MENTAL HEALTH?

UNKNOWN — Although Head Start programs are required to include a mental health component, no studies were located that evaluate the effect of mental health services.

■ IS HEALTH EDUCATION FOR HEAD START PARENTS EFFECTIVE?

GENERALLY NO — Most studies do not show a significant difference in health behavior practices at home between parents who participate in Head Start health education programs and those who do not participate.

IMPACT OF HEAD START ON FAMILIES

Head Start is intended to benefit not only children, but their families as well. Findings on family impacts of Head Start are based on the results of 75 studies. Five of these provided enough data on the relationship between parent involvement in Head Start and child cognitive performance to permit use of meta-analysis methods. The remaining findings result from narrative reviews of this literature.

■ DO HEAD START PARENTS VALUE THE HEAD START EXPERIENCE?

YES — Head Start parents see benefits to their children that are consistent with program goals and they also see many benefits to themselves. Parents of bilingual children and handicapped children are highly positive about Head Start's efforts to serve their children.

■ DO PARENTS PARTICIPATE IN HEAD START PROGRAMS?

GENERALLY YES — Sizeable proportions of parents participate in various paid and volunteer capacities. Many serve as teacher aides or prepare meals, while some perform administrative or clerical work. Others are involved in planning and policy development. Extent of involvement is uneven, however, with a core of parents contributing a disproportionate share of time.

■ IS PARENTAL INVOLVEMENT IN HEAD START RELATED TO A CHILD'S PERFORMANCE ON TESTS OF COGNITIVE ABILITY?

UNCERTAIN — Children whose parents are highly involved in Head Start perform better on cognitive tests than children whose parents are less involved. It is unclear whether the difference is actually a result of Head Start involvement, or whether such

factors as parental concern for the child's education lead to both parental involvement and child achievement.

- **DO HEAD START PROGRAMS PRODUCE CHANGES IN PARENTAL CHILD-REARING PRACTICES?**

  UNCLEAR — The impact of Head Start on parental child-rearing practices has been mixed. Some studies report small but positive effects on parents' interaction with children, while other studies have shown no effects.

- **DO SPECIAL PROGRAMS THAT FOCUS ON HELPING PARENTS TEACH THEIR CHILDREN ACADEMIC SKILLS HAVE AN EFFECT ON EITHER PARENTS OR CHILDREN?**

  UNCLEAR — While some studies report significant gains by children whose parents received special parent-as-educator training, others show no impact. Evidence for impact on parents is similarly inconclusive.

- **DOES HEAD START INVOLVEMENT AFFECT PARENTS' ATTITUDES TOWARD EDUCATION?**

  NO — Head Start has little effect on changing parents' attitudes toward the value of education. Most studies find no difference in attitude between Head Start and non-Head Start parents. Children whose parents do value education score higher on cognitive tests and behavioral ratings.

- **DOES EXPERIENCE WITH HEAD START AFFECT PARENTS' ATTITUDES TOWARD THEIR OWN LIVES?**

  PERHAPS — Several studies suggest that mothers who actively participate in Head Start are happier and show increased trust in other people, improved psychological well-being, and less anxiety, depression and somatic complaints than mothers who participate less. There is not enough information, however, to be sure that Head Start experience is the cause of those positive outcomes.

- **ARE THERE PARTICULAR PARENT-CHILD BENEFITS FROM HEAD START FOR CHILDREN WITH SPECIAL NEEDS?**

  UNKNOWN — Evidence related to this question is sparse and mostly subjective. The best-designed study found some improvement in parent-child interactions for profoundly handicapped children.

■ ARE THERE BENEFITS TO HEAD START FAMILIES BEYOND EDUCATIONAL SERVICES FOR ENROLLED CHILDREN?

YES — Compared to parents of children in non-Head Start preschools, Head Start parents receive more assistance from preschool staff in areas including personal and family problems, hygiene, food habits and medical care. Head Start programs also link families with a wide range of health and social services, and Head Start families increase their use of health care providers.

■ HAS HEAD START MADE A DIFFERENCE IN THE LIVES OF PARTICIPATING FAMILIES?

IN SOME CASES — Anecdotal data from several studies indicate that many Head Start parents attribute improved employment and educational status and elevated personal aspirations to Head Start involvement. There has been no systematic research on the topic, however.

IMPACT OF HEAD START ON COMMUNITIES

Head Start is a community-based program. Local centers are encouraged to be responsive to their communities and to involve community resources in meeting the needs of Head Start children. Results of 29 studies are synthesized in these findings about the impact local programs have made on their communities. All findings are based on narrative reviews.

■ DOES HEAD START HAVE LINKAGES WITH LOCAL SCHOOL SYSTEMS?

YES — Head Start programs often maintain working relationships with local public schools as evidenced by many programs' use of school resources, joint staff training and cooperative policy statements.

■ DOES HEAD START PLAY A ROLE IN COMMUNITY HEALTH AND SOCIAL SERVICE SYSTEMS?

YES — Several studies indicate that Head Start is associated with such systems in many different capacities. Head Start programs provide or arrange for a wide range of health and social services for children and their families. They also serve as information and referral sources for community residents, and as advocates to assure that parents receive needed services.

- **HAS HEAD START GENERATED INCREASED UTILIZATION OF EDUCATIONAL, HEALTH AND SOCIAL SERVICES?**

  YES — Head Start programs educate parents about the need for such services and how to obtain them, and encourage their use.

- **DOES HEAD START CREATE GREATER PARENTAL INVOLVEMENT IN THE COMMUNITY?**

  UNCLEAR — Head Start does provide parents with opportunities to develop skills in community organization, leadership and decision making. However, the only study that examined this issue directly found that parents highly involved with Head Start had previously been highly involved in their communities. Nevertheless, Head Start parents' participation in the community is evidenced by their active local support and lobbying efforts on behalf of the program.

- **HAVE HEAD START PROGRAMS BROUGHT ABOUT CHANGES IN EDUCATIONAL, HEALTH, SOCIAL SERVICE, AND ECONOMIC SYSTEMS IN THEIR COMMUNITIES?**

  PROBABLY — There is evidence that qualitative and quantitative improvements in services and practices have resulted from efforts of Head Start staff and/or parents. One study found many changes in communities with, and few changes in communities without, Head Start programs. However, the extent of Head Start-related changes nationwide and the frequency with which Head Start has been the primary cause of such changes is unclear because few studies have examined such impact systematically.

- **DO THE BENEFITS OF HEAD START'S COMMUNITY IMPACTS EXTEND BEYOND HEAD START FAMILIES?**

  YES — Much of the community involvement by Head Start programs has focused successfully on making institutions more aware of and responsive to the needs of the poor. Futhermore, a large proportion of referrals to community services from Head Start programs are for low-income persons not affiliated with Head Start.

- **WHAT ARE SOME OF THE CHANGES IN COMMUNITY INSTITUTIONS THAT HAVE RESULTED FROM HEAD START INFLUENCE?**

  EDUCATION — Head Start concepts and practices such as use of paraprofessionals, increased parent involvement, and development of comprehensive family services have been transferred to some

public school systems. Head Start also has made school systems more aware of the educational and social problems of the poor.

HEALTH & SOCIAL SERVICES — In addition to providing referrals and assisting with access to services, there is evidence that Head Start has contributed to the establishment of new mental health clinics and the addition of needed services. It has also advocated for the provision of social services to low-income families.

ECONOMY — A Head Start program is an integral part of a community's economic environment. It provides jobs and purchases goods and services. Head Start programs employed 75,860 people in 1982-83. Almost 60 percent of these were minority-group members and many were previously unemployed. Head Start involves parents in education and training that enhance their employability. In some cases Head Start has influenced the hiring practices of other community agencies such as public schools and human service organizations. In addition, efforts by Head Start programs to increase community services have led to the creation of new jobs.

- **DOES THE VISIBILITY OF A LOCAL HEAD START PROGRAM RELATE TO THE PROGRAM'S EFFECTIVENESS IN INFLUENCING COMMUNITY INSTITUTIONS?**

  YES — There appears to be a relationship between program visibility and effectiveness in precipitating change. In most instances where changes are reported, the Head Start program has had a high degree of local visibility.

- **IS A HEAD START PROGRAM'S INVOLVEMENT IN COMMUNITY CHANGE INFLUENCED BY THE TYPE OF AGENCY THAT OPERATES IT (E.G., COMMUNITY ACTION AGENCY OR LOCAL SCHOOL DISTRICT)?**

  UNCLEAR — Some studies suggest that programs operated by different agencies employ different strategies for effecting community change. Findings vary, however, on whether this relationship exists and what the links may be.

- **IS PARENT PARTICIPATION RELATED TO THE COMMUNITY IMPACT OF A HEAD START PROGRAM?**

  YES — Head Start centers with high parent participation are more active in effecting community institutional changes than are centers where parental participation is low.

DISCUSSION

Findings of the Head Start Evaluation, Synthesis and Utilization Project suggest that the Head Start program has enjoyed considerable success. The program has immediate positive effects on cognitive and socioemotional development; persistent effects on preparing children to succeed in school; significant influence on improving children's physical health, motor coordination and development, and nutrition; positive effects on parents; and strong influences on community institutions to meet the needs of low-income families and their children

While the overall findings are positive, there are clear signals that some areas have not been as successful as others and that Head Start would benefit from program improvements and research focused on topics most relevant to program operation. What do the findings on the cognitive and socioemotional effects of Head Start and its impact on child health, families and communities tell us about future directions for the Head Start program?

COGNITIVE AND SOCIOEMOTIONAL EFFECTS

Clearly, Head Start has strong immediate effects on the cognitive and socioemotional development of young children. These effects are both statistically and educationally meaningful. Over time it appears that test score differences between Head Start and non-Head Start children fade. However, there is some evidence that Head Start graduates outperform comparison children on long-term measures of school success. The studies available suggest that Head Start children may develop the desired social competence to adapt more readily to their school environment and achieve more "real life" academic successes than their non-Head Start peers. From the few studies in this area, these children are seen to progress on schedule in school, and are better able to satisfy requirements for remaining in regular education classes. Such results have significant economic and social cost savings. It is unfortunate that more Head Start studies have not examined these outcome indicators.

The final report of this project includes analyses comparing long-range cognitive effects found by studies conducted before and after 1970. The average impact of Head Start on children for the first two years after leaving Head Start is greater when measured by studies carried out after 1970. This suggests that Head Start program changes made in the 1970s, such as converting summer Head Start to full year programs, initiating a training and technical assistance effort, implementing Head Start Performance Standards and launching the Child Development Associate credential, may be having positive effects on cognitive performance. It also suggests that new impact research is needed to examine the effects of these program improvements on children.

The lack of clear evidence on the interactive effects of program and child and family background characteristics with Head Start is probably due as much to the inadequacy of data as to the lack of effects. Well-designed studies which address these issues directly and within the context of current program operations are still needed.

While Head Start is on the right path, the fact that differences diminish soon after

Head Start indicates that even more program improvements are warranted. It may be that cognitive and socioemotional differences diminish over time because the educational environment in elementary schools does not support and stimulate the children as effectively as Head Start did. This suggests that more innovative arrangements designed to sustain the early developmental benefits of Head Start would be desirable. Closer ties could be sought with elementary schools on curricular issues to assure that Head Start children are later exposed to learning activities consistent with their developmental levels. More effective partnerships between parents and Head Start teachers also might prove effective. Parents who see that their efforts contribute to their child's development while in Head Start would be likely to continue this role in elementary school. Certainly the Administration on Children, Youth and Families' imminent plans to revise the Head Start monitoring system and introduce nationwide training for educational coordinators are examples of the positive changes that can be made.

HEALTH, FAMILIES AND COMMUNITY EFFECTS

Head Start is very successful in improving the general health of the children it serves, providing needed health care, and improving existing health care within communities. It appears less successful in its health education efforts and in its efforts to influence better home health practices. Improvements also are needed in services for the handicapped, including better recruiting techniques, more specialized teacher training, and individual service plans.

Head Start parents generally are positive about their children's experience and are satisfied with the benefits they receive. There is evidence that parents who actively participate in the program have high levels of psychological well-being, improve their economic and social status, and have children with high levels of developmental achievement. Parent participation is uneven, however, with a core of parents providing the majority of volunteer hours.

Attempts by Head Start to change parental attitudes about the value of education generally have not been successful, even though these parental values are predictors of child achievement. Parent education programs designed to influence child-rearing practices in the home have had mixed results.

There are no simple strategies for improving parental involvement or helping parents be more effective change agents in their children's development. More programs in which parents play an active role in their children's education should be promoted, and program research should focus on learning what types of programs are most effective. Anecdotal evidence suggests that Head Start can have profound effects on the personal development and economic status of poor families. Systematic research on these important effects of Head Start, especially over time, is badly needed.

Head Start has been associated with positive changes in community institutions and improvements in the economic base of communities. These changes usually result in increased and more comprehensive social and health services for the poor and in more responsive educational programs. Greater visibility and greater parent participation both increase the effectiveness of a local Head Start program in affecting community institutions.

Much of the research done on community effects has been based on case studies and anecdotal findings. It therefore is not possible to attribute specific changes to Head Start involvement or to estimate the extent of the changes. More systematic research is needed, particularly on ways of increasing parent participation and program visibility to enhance a local Head Start program's effectiveness as an agent of community change.

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